REMARKS

Reconsideration of the present application is respectfully requested. In this amendment, claims 2, 8-12, 16 and 19-22 have been canceled. Claims 1, 3-7, 14, 17-18 and 24-26 have been amended. Claims 27-31 have been added. Therefore, claims 1, 3-7, 13-15, 17-18 and 23-31 are presented for examination.

Rejections

Claims 1, 14, 15 and 24-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,650,619 to *Schuster* et al. ("*Schuster*"). Claims 2-13 and 16-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of *Schuster* in view of U.S. Patent No. 6,446,108 to *Rosenberg* et al. ("*Rosenberg*").

Independent claims 1, 14 and 24-26, as amended, each include at least one limitation not disclosed nor suggested by *Schuster* or *Rosenberg*, individually or in combination. Specifically, independent claim 1 now includes limitations based upon the limitations of claims 2 and 8-12. For example, independent claim 1 recites a method, which includes (among other operations): "using a flow control algorithm in the intermediary node to compute a back-off time period, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node." Applicants submit that neither *Schuster* nor *Rosenberg*, individually or in combination, disclose or suggest this limitation. Independent claims 14 and 24-26 each include a similar limitation.

Although Applicants' arguments will address the alleged combination of *Schuster* and *Rosenberg*, it is useful to first consider their individual teachings.

First, with regard to *Schuster* individually, (as Examiner stated with regard to claim 2) *Schuster* does not specifically teach the use of a message flow control algorithm. (Office Action, p. 4, mailed Dec. 28, 2004). Applicants agree. Therefore, Applicants submit that *Schuster* does not disclose the limitation of "using a flow control algorithm in the intermediary node to compute a back-off time period, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node."

Second, with regard to *Rosenberg* individually, *Rosenberg* also does not disclose the limitation stated above. Although *Rosenberg* discloses the use of a back-off algorithm, *Rosenberg* does not disclose using a flow control algorithm in an intermediary node to compute a back-off time period, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node. Rather, *Rosenberg* discloses that an originating node uses an algorithm to determine when to send an advertisement to a multicast group to be received at a broker.

According to *Rosenberg*, if the frequency of advertisements from a server were fixed, the total number of packets sent to a multicast group, and received at each broker, would grow linearly with the number of servers advertising. This can lead to congestion and poor performance. (*Rosenberg* , col. 3, lines 34-40). To deal with this, *Rosenberg* discloses that the frequency of the advertisements from a server is set to scale back. (*Rosenberg* , col. 3, lines 40-42). Any server which advertises to a

multicast group G also joins and listens to the group. It [the server] counts the number of distinct other servers which send advertisements to the group. Assume, for example, that N other servers are heard from. The period of advertisements from the server is then set to N times some basic period Tb. (*See*, *Rosenberg*, col. 3, lines 43-48).

Therefore, in *Rosenberg*, the server (or originating node) uses an algorithm to determine when to send an advertisement to a multicast group to be received at a broker. Therefore, *Rosenberg* does not disclose or suggest the limitation of "using a flow control algorithm in the intermediary node to compute a back-off time period, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node."

Finally, with regard to *Schuster* and *Rosenberg* in combination, it would not have been obvious to one of ordinary skill in the art at the time of the invention by Applicants to combine the teachings of *Schuster* and *Rosenberg*, at least because *Schuster* teaches away from such combination, as explained below.

Examiner suggests that it would have been obvious to incorporate the *Rosenberg* flow control algorithm into the *Schuster* system, as once the signaling server learns of the state of congestion, it may instruct the registered gateways to reduce the number of signaling messages that they send, which instruction the Examiner contends would obviously include some sort of "back-off" algorithm, especially in light of *Schuster's* "emergency mode" wherein a [sic] gateway messaging is limited, or obviously eliminated in severe emergency congestion situations. (Office Action, p. 4, mailed Dec. 28, 2004). Examiner further states that it would have been obvious to

utilize the gatekeeper/gateway for purposes of algorithm application in light of its function as "brain" of the signaling system. (Office Action, p. 6, mailed Dec. 28, 2004).

However, *Schuster* teaches away from increasing processing executed by a "signaling server," or "gatekeeper" (see, *Schuster*, col. 3, lines 3-4), during congestion. Instead, *Schuster* seeks to reduce the gatekeeper's functions during congestion. Therefore, *Schuster* teaches away from using the algorithm of *Rosenberg* in the signaling server or gatekeeper (the alleged "intermediary node").

Specifically, *Schuster* discloses that, functionally, the gatekeeper is the focal point or "brain" of the internet telephony signaling system. (*Schuster*, col. 8, lines 23-24). *Schuster* discloses that the gatekeeper and signaling system as a whole must process a substantial number of signaling messages, and this processing defines a processing burden or workload on the gatekeeper and signaling system. (*Schuster*, col. 8, lines 28-32). The *Schuster* signaling system can itself serve as a bottleneck to call admission in high traffic situations. (*Schuster*, col. 3, lines 61-63). To alleviate and/or help avoid this signaling bottleneck, *Schuster* contemplates "reducing the load of the signaling system in response to the existence or likelihood of congestion in the internet telephony system (as, for instance, in response to an emergency such as a natural disaster)." (*Schuster*, col. 4, lines 13-18).

Schuster specifically discloses a mode in which messages are routed without use of the signaling server (or gatekeeper): "the signaling server may be programmed to switch from the first mode to the second mode in response to a state of congestion...in the second mode[,] the signaling server may not participate...in routing such messages." (*Schuster*, col. 16, lines 38-39 and 46-18). In particular, *Schuster* teaches

away from increasing, and towards eliminating, the signaling system's processing during *Schuster's* "emergency mode" in stating: "in the emergency mode, the signaling server may instruct its registered gateways...to reduce the number of signaling messages that they send to the signaling server, such as by switching to direct-routing of call-connection..." (*Schuster*, col. 4, lines 37-42). In the direct-routed model, the call setup and control messages are conveyed directly between the gateways that serve the call participants, without the assistance of the gatekeeper(s). (*Schuster*, col. 3, lines 51-54). Therefore, *Schuster* teaches toward bypassing the gatekeeper when routing messages during an emergency mode. The switch instruction sent by the *Schuster* gatekeeper before it ceases to participate in routing messages does not prevent messages from being routed to an upstream node via direct routing. Therefore, there is no motive in *Schuster* to use a flow control algorithm in the gatekeeper (the alleged "intermediary node") to compute a back-off time period, either while the gatekeeper routes messages or before the gatekeeper ceases to route messages, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node.

Therefore, it would not have been obvious to incorporate the *Rosenberg* flow control algorithm into the *Schuster* system, because such incorporation would increase, not decrease, the processing burden or workload by the *Schuster* signaling server (or gatekeeper), which *Schuster* attempts to alleviate and/or avoid. In particular, it would not have been obvious to use the *Rosenberg* flow control algorithm in the *Schuster* system during *Schuster's* "emergency mode" because during such mode *Schuster* tries to reduce the gatekeeper's workload, while still routing messages to the upstream node.

Therefore, neither *Schuster* nor *Rosenberg*, individually or in combination, disclose or suggest the limitation using a flow control algorithm in the intermediary node to compute a back-off time period, wherein the back-off time period is a minimum amount of time for the downstream node to wait before resending the message destined for the upstream node."

Further, neither *Schuster*, nor *Rosenberg,* disclose or suggest the limitation above in combination with the other recited operations of the claims, e.g. the limitation in claim 1 of "sending a back-off message including the back-off time period from the intermediary node to the downstream node in response to the first request and said determining that the first request should not be forwarded."

Therefore, neither *Schuster*, nor *Rosenberg*, nor the combination thereof, disclose or suggest the limitations of independent claims 1, 14 or 24-26. Therefore, Applicants respectfully submit that independent claims 1, 14 and 24-26 are in condition for allowance. Accordingly, Applicant respectfully requests withdrawal of the rejections.

Dependent claims

Claims 3-7, 13, 17-18, 23 and 27-31 depend, directly or indirectly, from one of the foregoing independent claims. In view of the above remarks, a specific discussion of these dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim. Applicants respectfully submit that *Schuster* and *Rosenberg* fail to render

obvious dependent claims for at least the reasons discussed above with respect to the independent claims.

Accordingly, Applicants respectfully request withdrawal of the rejection of dependent claims under 35 U.S.C. § 103(a) and respectfully submit that the dependent claims are also in condition for allowance.

CONCLUSION

Applicants respectfully submit the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Jordan Becker at (408) 720-8300.

Pursuant to 37 C.F.R. 1.136(a)(3), Applicants hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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